H. T. HARVEY & ASSOCIATES

*ECOLOGICAL CONSULTANTS*

17 February 2002

Russ Lewis
Bureau of Land Management
Caliente Resource Area
3801 Pegasus Drive
Bakersfield, CA 93308

Dear Russ,

The following is a summary of the bat survey results for the Bureau of Land Management's (BLM) Case Mountain Unit located near Three Rivers in Tulare County, California. In addition to myself, other wildlife biologists, including Joanna Cezniak, Robin Dakin, Julie Klingman, Naomi Nichol, and Scott Yeager, from H. T. Harvey & Associates, helped set up and take down nets. We surveyed a total of four trapping nights over two visits (18 19, and 20 July, and 1 September, 2001). As per our contract, we used a series of nets, including several smaller nets (10 ft. X 60 ft., 10 ft. X 30 ft.) and a macro net (20 ft X 100 ft), in various combinations at pools in four areas ("Old Camp" site, Coffee Pot, Salt Creek Ridge and Big Trees). Additionally, we used a Tuttle trap on most nights and also observed bats on the bridge over the East Fork of the Kaweah River on Mineral King Road near the junction of Oak Grove Road. Although we surveyed acoustically for bats using the ANAbat 5 system, this method was less reliable for determining *Myotis* species because some species in this genus are confused with sister taxa. Therefore, systematic acoustic surveying was dropped from the study, and only the spotted bat *(Euderma maculatum),* was determined solely from acoustic cues.

We caught the big brown bat *(Eptesicus fuscus),* and five species of *Myotis,* namely the California bat *(Myotis californicus),* western small-footed bat (M. *ciliolabrum),* long-eared bat *(M. evotis),* fringed bat *(M. thysanoides),* and the long-legged bat (M. *volans)*. Accoustically, we heard the spotted bat *(Euderma maculatum),* big brown bat, long-eared bat and other unidentified *Myotis* species. We observed a maternity colony of Mexican free-tailed bats *(Tadarida brasiliensis)* roosting in a bridge above Kaweah River, adjacent to the Case Mountain Unit. The attached Table 1. Provides names of the species observed and when and where they were caught. The spotted bat was heard on most evenings of the survey at the campsite (pond # 1). The attached Table 2. Provides the observed and expected bat species for the site. Some species (e.g., pallid bat) are not expected to occur in these forests but are expected on the BLM unit at lower altitudes near the Kaweah River. Areas surveyed all occurred either over or near ponds associated with the sequoia/mixed conifer forest. Habitats found in the Case Mountain Unit not surveyed, such as Chaparral, blue oak/annual grassland, riparian, barren rock, mixed conifer/hardwood forest and hardwood/mixed conifer forest, may have bat species not detected in the habitat surveyed.

Prescribed burning is scheduled for these survey sites within one to a few years. Little is known about the effects of fire ecology and the distribution and biology of bats. If data were collected for each year over several years, managers may learn more about the fire ecology of sequoias and how it may affect populations of bats. In addition to population levels, the roosting ecology of bats found in habitats associated with sequoias may be affected by fire management practices.

**Other vertebrate species.** We observed the following birds at the campsite: Wrentit, Western Bluebird, Mountain Quail, Blue-gray Gnatcatcher, American Crow, Fox Sparrow, Dark-eyed Junco, Vaux's Swift, Violet-green Swallow, Western Scrub-Jay, Rufous-sided Towhee, American Goldfinch, Lesser Goldfinch, Northern Flicker, American Robin, Yellow-rumped Warbler, Yellow Warbler, MacGillivray's Warbler, Cooper's Hawk, Hairy Woodpecker, Rednapped Woodpecker, and the Acorn Woodpecker. In other areas within the Case Mountain Unit, we also observed birds such as the Common Raven, Stellar's Jay, Western Wood Peewee, Sharp shinned Hawk, Black-headed Grosbeak, Mountain Chickadee, and mammals such as the black bear, Sierra chickaree, California ground squirrel, and mule deer.

Please call if you have any questions regarding this report. It is my hope that you can continue supporting bat surveys at this funding level or higher to help monitor the Case Mountain populations of bats during long-term fire management practices. In addition to private foundations, perhaps the adjacent Sequoia National Park may also be interested in funding this work.

Sincerely yours,

Dave Johnston,
Wildlife Ecologist

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